

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-19 (Cancelled).

20. (Currently Amended) A continuous process for manufacturing an electric cable, comprising the steps of:

feeding a conductor at a predetermined feeding speed;

extruding a thermoplastic insulating layer in a radially outer position with respect to the conductor;

cooling the extruded insulating layer to a temperature not higher than 70°C; and

forming a circumferentially closed metallic screen around said extruded insulating layer,

wherein the process operates continuously from the feeding step through the forming step without any intermediate resting or collecting steps.

21. (Previously Presented) The process according to claim 20, wherein the extruded insulating layer is cooled to a temperature from about 30°C to about 70°C.

22. (Previously Presented) The process according to claim 21, wherein the extruded insulating layer is cooled to a temperature from about 40°C to about 60°C.

23. (Previously Presented) The process according to claim 20, wherein the forming step comprises the step of longitudinally folding a metal sheet around said extruded insulating layer.

24. (Previously Presented) The process according to claim 23, wherein the forming step comprises the step of overlapping the edges of said metal sheet to form the metallic screen.

25. (Previously Presented) The process according to claim 23, wherein the forming step comprises the step of bonding the edges of said metal sheet to form the metallic screen.

26. (Previously Presented) The process according to claim 20, further comprising the step of supplying the conductor in the form of a metal rod.

27. (Previously Presented) The process according to claim 20, further comprising the step of applying a primer layer around the metallic screen.

28. (Previously Presented) The process according to claim 27, wherein the step of applying the primer layer is carried out by extrusion.

29. (Previously Presented) The process according to claim 20, further comprising the step of applying an impact protecting element around said circumferentially closed metallic screen.

30. (Previously Presented) The process according to claim 29, wherein the step of applying an impact protecting element comprises the step of applying a non-expanded polymeric layer around said metallic screen.

31. (Previously Presented) The process according to claim 29, wherein the step of applying an impact protecting element comprises the step of applying an expanded polymeric layer.

32. (Previously Presented) The process according to claim 31, wherein an expanded polymeric layer is applied around the non-expanded polymeric layer.

33. (Previously Presented) The process according to claim 20, further comprising the step of applying an oversheath around the metallic screen.
34. (Previously Presented) The process according to claim 33, wherein the oversheath is applied around an expanded polymeric layer.
35. (Previously Presented) The process according to claim 20, wherein the step of cooling the extruded insulating layer is carried out by longitudinally feeding the conductor with the thermoplastic insulating layer through an elongated cooling device.
36. (Previously Presented) The process according to claim 20, wherein the thermoplastic polymer material of the insulating layer is selected from the group of polyolefins, copolymers of different olefins, copolymers of an olefin with an ethylenically unsaturated ester, polyesters, polyacetates, cellulose polymers, polycarbonates, polysulphones, phenol resins, urea resins, polyketones, polyacrylates, polyamides, polyamines, and mixtures thereof.
37. (Previously Presented) The process according to claim 36, wherein the thermoplastic polymer material is selected from the group of polyethylene (PE), polypropylene (PP), ethylene/vinyl acetate (EVA), ethylene/methyl acrylate (EMA), ethylene/ethyl acrylate (EEA), ethylene/butyl acrylate (EBA), ethylene/ $\alpha$ -olefin thermoplastic copolymers, polystyrene, acrylonitrile/butadiene/styrene (ABS) resins, polyvinyl chloride (PVC), polyurethane, polyamides, polyethylene terephthalate (PET), polybutylene terephthalate (PBT), and copolymers thereof or mechanical mixtures thereof.

38. (Previously Presented) The process according to claim 20, wherein the thermoplastic polymer material of the insulating layer includes a predetermined amount of a dielectric liquid.